

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re: Application of: Dresch et. al  
Serial No.: 09/808,468  
Art Unit: 2881  
Examiner: K. T. Nyguen  
Filing Date: March 14, 2001  
For: Ion Storage Time-Of-Flight  
Mass Spectrometer  
Attorney Docket No. 840.066.202

May 2, 2005

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Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

AMENDMENT/RESPONSE

Sir:

In response to the Official Action of March 1, 2005, please amend this application as follows:

Amend Claim 11 as follows:

11. (Fourth Amendment) An apparatus for analyzing chemical species comprising:

(a) a time-of-flight mass analyzer with an ion pulsing region and a detector,

(b) an ion source for producing ions forming an ion beam from said chemical species,

(c) a two-dimensional multipole ion guide having an ion guide axis of symmetry and having an entrance end where ions enter said ion guide from said ion source and an exit end where ions exit said ion guide, said two-dimensional multipole ion guide functioning as a two-dimensional ion trap, wherein said two-dimensional multipole ion guide comprises a plurality of spaced apart rods parallel to each other and extending from said entrance end to said exit end, said ion beam having an axis thereof which is parallel to said spaced apart rods, said two dimensional ion trap trapping ions

in all axes including the axis which is generally parallel to the ion guide axis of symmetry.

(d) means for pulsing said ions, transferred into said pulsing region, into said time-of-flight mass analyzer for mass analysis, and

(e) means for detecting said mass analyzed ions.

A COMPLETE LISTING OF THE CLAIMS FOLLOWS THE SIGNATURE PAGE OF THIS AMENDMENT.